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California Regional Water Quality Control Board Central Valley Region

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18 August 2006

Mr. Gregory Wellman, City Manager
City of Atwater
750 Bellevue Road
Atwater, CA 95301

NOTICE

REVISIONS TO TENTATIVE NPDES PERMIT AND WASTE DISCHARGE REQUIREMENTS FOR CITY OF ATWATER WASTEWATER TREATMENT FACILITY MERCED COUNTY

TO ALL INTERESTED PERSONS:

On 12 July 2006, the Central Valley Regional Water Quality Control Board (Regional Water Board) circulated Tentative Waste Discharge Requirements (TWDRs) that included variable final ammonia effluent limitations and a proposed Time Schedule Order to comply with the final ammonia effluent limitations. The variable limitations require the one-hour effluent limitation and the monthly average effluent limitation to be calculated based on the pH and temperature measured in the receiving water. Regional Water Board staff is proposing to remove the variable limitations and establish ammonia effluent limitations expressed as a single value for the one-hour average and monthly average. The revised limitations are based on the acute and chronic ammonia toxicity criteria using critical conditions that are a combination of worst-case observations. Specifically, the one-hour average and monthly average limitations are based upon the maximum pH allowed by the TWDRs (i.e., 8.5 standard units) and the highest monthly average temperature of the receiving water (i.e., 27.3°C).

Effluent data contained in self-monitoring reports show that the City of Atwater WWTF cannot consistently comply with the proposed effluent limitations for ammonia. Regional Water Board staff no longer proposes a separate time schedule order to comply with the final effluent limitations. Alternatively, Regional Water Board staff recommends incorporating an interim

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effluent limitation expressed as a daily maximum (based on the maximum value reported by the City between January 2001 and April 2006) and include a compliance schedule to comply with the final ammonia effluent limitations in the revised TWDRs.

The enclosed revision sheet provides an underline/strikeout version of the relevant changes in the permit. The Fact Sheet will be updated to reflect the proposed revisions.

While the proposed final ammonia effluent limitations are fully protective, the Regional Water Board may decide they are overprotective under the discharge circumstances. In this case, Regional Water Board staff may consider alternate effluent limitations, as set forth below.

One-Hour Average Effluent Limitation for Ammonia

Alternative

The one-hour average effluent limitation could be derived using the critical pH from an evaluation of the receiving water pH and effluent pH. Evaluation of 1,884 effluent pH measurements from January 2001 to April 2006 indicates that the maximum pH was 7.94. Evaluation of 273 downstream receiving water pH measurements from January 2001 to April 2006 indicates that the maximum pH was 7.58. Thus, the critical pH value is 7.94, and this results in a one-hour average ammonia effluent limitation of 9.41 mg/L.

Monthly Average Effluent Limitation for Ammonia

Alternative

The monthly average is based on a chronic criterion, which is a function of both pH and temperature. This alternative considers the median effluent pH and the median downstream receiving water pH. The median is best for determining chronic toxicity because over a period of time potential receptors will be exposed to a more or less average ammonia concentration. This alternative is also based on the maximum monthly average temperature of the downstream receiving water.

Evaluation of 1,884 effluent pH measurements and 273 receiving water pH measurements from January 2001 to April 2006 indicates that the median pH was 7.20 for both the effluent and the receiving water. The maximum reported monthly average temperature of the receiving water between January 2001 and April 2006 was 27.3°C.

The pH of 7.20 and temperature of 27.3°C results in a monthly average ammonia effluent limitation of 2.36 mg/L.

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City of Atwater
City of Atwater WWTF
Merced County

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Comments on the proposed revisions should be submitted as soon as possible, but no later than **18 September 2006**. Comments received after this date will not be considered.

If you have any questions regarding the changes, please contact Matt Scroggins at (559) 445-6042 or myself at (559) 445-5919.

W. DALE HARVEY
Senior WRC Engineer
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Enclosure: Revision Sheet

cc: Mr. Douglas Eberhardt, (WTR-5), U.S. EPA, Region IX, San Francisco
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U.S. Fish and Wildlife Service, Sacramento
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